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REMARKS

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Claims 7-20 are pending in the present application. Claims 11 and 13 are allowed. Claims 7-10, 12 and 14-20 are rejected. Applicant respectfully traverses the rejections.

The Examiner rejects claims 7-9, 12, and 14-19 under 35 U.S.C. 103(a) as being unpatentable over Tsutsumi (US 5,312,866) (" '866") in view of Maeda (US 6,432,323) (" '323"). Regarding claim 7, the Examiner admits that the '866 patent fails to teach a specific example whereby the composition comprises a specific combination of wherein the three lubricating fillers comprise fillers in an amount as claimed in the present application. The Examiner deems the present invention as obvious noting it would have been obvious for one of ordinary skill in the art at the time the invention was made to have optimized the process of making the composition to obtain one comprising the at least three lubricating fillers as claimed by the Applicant. The Examiner then combines the '866 patent reference with the disclosure of the '323 patent reference to conclude that the LCP content in the matrix resin, which overlaps the claims range of from about 45 to about 75 percent by weight, renders Applicant's invention obvious. More specifically, the Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have increased the LCP in the composition of the '866 patent reference in order to obtain the desired balance of lubrication and mechanical strength, combined with excellent heat-resistance.

Obviousness can not be established without applying the standards set forth by the U.S. Supreme Court in Graham v. John Deere, 148 U.S.P.Q. 459 (1966). In order to establish a case of prima facie obviousness under 35 U.S.C. 103(a), the MPEP 2143 directs that (i) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (ii) there must be a reasonable expectation of success; and (iii) the prior art reference must teach or suggest *all* the claim limitations. MPEP 2142, citing In re Vaeck, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991) (Emphasis added). The Examiner has not established a prima facie case of obviousness. Accordingly, Applicant must traverse the rejection.

In the present case, the cited references relate to the same general art area. However, in combination, there is no teaching, suggestion, motivation, or even discussion of the presently

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claimed compositions having claim limitations as recited in Applicant's invention. Examiner has drawn a conclusion as to the obviousness of the optimization of a process to establish obviousness in the claimed composition, which has certain properties (ie, wear resistance) at certain minimum and measurable conditions, without stating explicitly how one of ordinary skill in the art would arrive at Applicant's invention based on the disclosure in the cited references.

First of all, the Examiner proposes that one skilled in the art would manipulate the process of making the composition to arrive at the claimed invention (see page 4 of the Office Action, last paragraph). Applicants point out that the claimed invention (claim 7) is directed to a composition of matter, and not a process. Whether or not a certain process is obvious based on the combined references is inapposite and does not establish obviousness of Applicant's claimed composition.

Neither reference, singly or in combination, arrives at the claimed invention. None of the references disclose good wear resistance as defined in Applicant's invention. Further, the suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not in an applicant's disclosure. In re Vaeck, 20 USPQ.2d 1438 (Fed. Cir. 1991). The Examiner has not explicitly pointed out the Applicant's claimed composition. Rather, the Examiner proposes that modification of a process would lead one to Applicant's claimed invention. This is insufficient to establish prima facie obviousness. Moreover, the Examiner has failed to establish that the Graham factors have been met, and has not pointed out to Applicant how the combination of references arrives at each and every limitation in the claimed invention. Accordingly, withdrawal of the rejection is proper.

Assuming the Examiner had established prima facie obviousness, the Examiner must consider Applicant's rebuttal. The cited references comport with conventional wisdom, while Applicant proceeded contrary to accepted wisdom in the general art. Indeed, only certain enhanced mechanical properties are mentioned in the cited references and one having ordinary skill in the art would not find those mechanical properties to be unusual. However one having ordinary skill in the art would *not*, as Applicant did, expect to be able to find the compositional ranges to arrive at the desired lubricating properties and also maintain enhanced mechanical properties. Applicant's invention shows that it does not make a difference whether the fiber is carbon or glass (which, of course, is abrasive), mechanical properties have no bearing on lubrication. The Examiner equates the plasticization of the '323 reference with the lubrication of

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the present invention. This is neither technically accurate, nor is it what Applicant have claimed as her invention.

Claims 8, 9 and 12 depend from claim 7. Consequently, all limitations of claim 7 are present in claims 8, 9 and 12. Applicant responds to the rejections of claims 8, 9 and 12 by incorporating the same arguments as put forth above in response to the rejection of claim 7. For the same reasons, Applicant believes withdrawal of the rejection is proper.

The Examiner has also rejected claims 14-19 using the same combination of references. Applicant directs the Examiner's attention to the recited limitation, which requires that the claimed composition has a least good wear resistance at conditions of at least 1.75 MPa – m/s. As demonstrated in response the Examiner's rejection of claim 7, which is incorporated by reference, the Examiner has not established a prima facie case of obviousness with the cited references. Specifically, the Examiner has not established that the combined references disclosed Applicant's claimed invention, including all limitations of that invention. Accordingly withdrawal of the rejection is proper.

The Examiner has also rejected claim 10 under 35 U.S.C. 103(a) as being unpatentable over Tsutsumi (US 5,312,866) (“ ‘866”) in view of Maeda (US 6,432,323) (“ ‘323”), as applied to claims 7-9, 12 and 14-19, and further in view of Long (US 6,348,163) (“ ‘163”). Applicant traverses the rejection.

Claim 10 depends from claim 7 indirectly, and therefore incorporates all of the limitations of claim 7. For the reason's set forth in Applicant's response to the rejections of claim 7 (which are incorporated herein by reference), the Examiner has failed to establish obviousness of the claimed invention recited in claim 10 over the '866 reference in view of the '323 reference.

Furthermore, the addition of the '163 reference to the combination does not cure Examiner's improper rejection. The '163 reference discloses the addition of particulate polyimide filler in LCP compositions. However, the combination does not establish the use of four fillers, for lubricating purposes, which are present in combination of greater than 25% by weight of the composition, and which has the melting point and wear resistance as claimed. Based on the foregoing, withdrawal of the rejection of claim 10 is proper and the same is requested.

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The Examiner has rejected claim 20 as being unpatentable over Long (US 5,969,083)(" '083") in view of the '163 reference, the '323 reference and the '866 reference. Applicant respectfully traverses the rejection.

The Long '083 patent discloses a LCP composition comprising at least two fillers, wherein the fillers can consist of graphite, carbon fiber, mica and *fibrous* polyimide. The combination of the '163, '323 and the '866 references does not establish obviousness of Applicant's invention as recited in claim 20.

First, the combined references do not establish prima facie obviousness. Second, the Examiner applies impermissible hindsight to arrive at the claimed invention. Consequently, withdrawal of the rejection is proper.

Applicant's invention clearly requires the use of particulate polyimide, with specific ranges of graphite, fiber and mica present. It is this combination which renders Applicant's invention non-obviousness. The Examiner himself admits that Long '083 fails to establish the claimed invention. Indeed, the Examiner has cited multiple references, each of which disclose independent aspects of the claimed invention. However, the Examiner has not met his burden of demonstrating that the combination of the cited references fairly teaches, motivates or suggests the claimed invention. Even beyond the flexibility of the teaching, suggesting, motivation test, the Examiner has not supported his conclusions by explicitly stating why one skilled in the art would arrive at the claimed invention. The Examiner's conclusions, without more, are insufficient to establish prima facie obviousness.

More than the mere combination of multiple references, it is important to consider the references as a whole. None of the cited references discuss achieving mechanical properties along with lubrication, using LCP with the added components in the ranges as claimed. Applicant does not teach a chemical composition with new properties. Rather, Applicant has claimed a new and specific composition that imparts combined certain physical properties in the claimed invention.

Applicant invites the Examiner to consider graphite or fluoropolymers as potential additives in the '323 reference, which would lead one to infer that the compositions disclosed therein could be used to teach lubrication as a property. Also in the list of additives (column 6, line 27) there is no specific mention of adding lubricants other than the words "and the like". Of the additives disclosed in the '323 reference, the reference is very specific to state "small amounts

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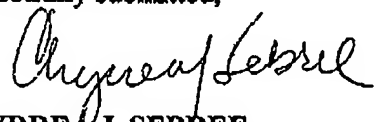
of other thermoplastic resins" (col. 6, line 33). Applicant's invention differs because she claims a composition comprising particulate polyimide which, by definition, does not melt. Therefore, it can not be included in a list of thermoplastic resins.

For the reasons stated herein, withdrawal of the rejection is proper, and the same is requested.

CONCLUSION

Based on the foregoing, Applicant's request withdrawal of the rejections concerning 7-10, 12, and 14-20, and allowance of these and with claims 11 and 13. If anything further is needed to advance prosecution of this application, the Examiner is invited to contact Applicant's attorney using the contact information provided below.

Respectfully submitted,



CHYRREA J. SEBREE
ATTORNEY FOR APPLICANT
Registration No.: 45,348
Telephone: (302) 992-3407
Facsimile: (302) 992-3257

Dated: May 21, 2007